

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



a TS 1577  
# 3052  
Cap. 2

U.S. DEPARTMENT OF AGRICULTURE REPORT NO. 9  
NATIONAL LIBRARY

70-8479

U.S. DEPARTMENT OF AGRICULTURE  
NATIONAL LIBRARY

## Cotton Fiber and Processing Test Results

CROP of

1975



Agricultural Marketing Service  
U.S. DEPARTMENT OF AGRICULTURE  
Memphis, Tenn. 38122 December 19, 1975

These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season. These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

1/ Summary of Cotton Fiber and Processing Test Results, Crop of 1974, USDA, AMS, Cotton Division, May 1975.



## COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1975

### Discussion of Test Results

The average fiber length of short staple cottons tested from the Southwest through December 12 is longer than a year ago, according to the Cotton Division, Agricultural Marketing Service, USDA. The cottons tested are finer and stronger than a year ago. Picker and card waste is lower. Yarns spun from these samples are stronger and have higher appearance grades. Yarn imperfections are fewer than last season. Average spinning potential yarn number is higher.

Average results for all medium staple samples tested to date show fiber properties to be about the same as a year ago. Picker and card waste is lower. Yarns spun from these samples are stronger, but appearance grades are slightly lower. Yarn imperfections are higher than a year ago. Average spinning potential number is lower.

Medium staple samples tested from the Southeast show fibers to be shorter, finer and stronger at zero gage strength tests than a year ago at this time. Yarns spun from these samples show weaker yarn strength with lower appearance grades. Yarn imperfections are higher than a year ago. Average spinning potential is lower.

Medium staple samples tested from the south central states show coarser and stronger fibers at zero gage strength tests. Picker and card waste is lower. Yarns spun from these samples show a slightly higher imperfection count than a year ago. Average spinning potential is lower.

Southwestern medium staple samples tested to date have finer and weaker fibers at zero gage strength tests. Picker and card waste is lower. Yarns spun from these samples show a higher imperfection count than a year ago.

Medium staple samples tested from the western area show fibers to be slightly longer, finer and slightly stronger than a year ago. Picker and card waste is lower. Yarns spun from these samples are stronger. Appearance grades are lower and imperfections are higher than a year ago.

Average test results for all long staple samples show fibers to be shorter, slightly coarser, and stronger at zero gage tests than last season. Processing tests show higher percentages of picker and card waste and comber waste than a year earlier. Yarns spun from these samples have about the same skein strength as last year but yarn appearance grades are a little higher. Yarn imperfections are higher than a year ago. Average spinning potential number is lower.

Long staple samples from the Southeast are shorter and coarser than a year ago. Zero gage fiber strength is stronger. Manufacturing waste is higher and yarn skein strength is weaker. However, yarn appearance grades are slightly higher than last year.

Long staple samples from the south central area are shorter and stronger at zero gage than a year earlier. Yarns have about the same skein strength as last season but higher appearance grades.

Long staple samples from the West are finer and stronger than last season. Picker and card waste is somewhat higher and so is comber waste. Both carded and combed yarns are stronger while most other yarn characteristics are about the same as last year. Yarn imperfections are higher than last season.

Test results on a limited number of American Pima samples show fibers to be slightly longer with higher mike readings than a year ago. The yarn quality is about the same as last season.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States  
1/  
through December 12, 1975

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results						
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality		Spin. Potent.			
		2.5% span	50/2.5 unif.		Pct.	Rdg.			Mpsi	G/tex		Skein str.	Appearance	Imperf- ections
				Inches			Pct.	Mpsi			G/tex			
Short Staple: Southwest	14	0.94	44	4.2	87	20	3.5	7.2	85	97	20	38		
	24	0.96	45	4.0	89	22	3.3	6.3	98	112	15	42		
Medium Staple: Southeast	46	1.09	45	4.4	81	22	3.4	6.4	102	104	19	61		
	34	1.07	44	4.2	83	22	3.8	6.1	97	97	26	52		
South Central	111	1.10	44	4.1	83	23	3.1	6.3	105	104	18	63		
	104	1.10	45	4.4	85	23	3.1	5.5	105	102	21	59		
Southwest	32	1.07	44	4.3	84	22	3.0	6.1	100	92	20	58		
	26	1.07	44	4.0	82	22	3.4	5.4	102	92	29	56		
West	55	1.11	46	4.5	92	25	2.4	5.8	117	103	16	68		
	52	1.12	45	4.2	93	26	2.3	5.3	124	94	23	69		
U.S. Average	244	1.10	45	4.3	85	23	3.0	6.1	98	102	18	63		
	216	1.10	45	4.3	86	23	3.0	5.5	108	98	23	60		
Significant dif- ference $\frac{2}{2}$		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3		

1/  
2/ Based on a limited number of samples of modal quality

Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through December 12, 1975 1/ (Continued)



Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1975

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns											
Sample Number		Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potential					
		2.5% span	Unif		Zero Gauge	1/8" Gauge			Gra	Yel		8s or 74 tx	22sor 27 tx	8s or 74 tx	22sor 27 tx	8s or 74 tx	22sor 27 tx	8s or 74 tx	22sor 27 tx						
No	Grade	Stple	32s	In	Pct	Rdg	Mpsi	G/tex	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No					
SOUTHWEST																									
AREA																									
NORTHWEST TEXAS																									
HART																									
2	SLM	LT	SP	42	29	0.88	45	3.1	93	21	STRIPPER 31		4.9	2	4	8.1	287	99	7.0	6.4	110	100	42	18	35
KRESS																									
1	MID	LT	SP	32	28	0.85	46	3.8	87	19	STRIPPER 32		3.0	2	4	7.3	278	84	6.8	5.4	120	90	35	27	29
2	SLM	LT	SP	42	31	0.96	42	2.8	94	22			4.1	2	4	7.1	316	100	7.7	6.2	120	100	46	23	46
LOOP																									
1	SLM			41	29	0.86	46	3.7	86	20	PAYMASTER 18		2.9	1	3	6.8	270	78	6.5	5.5	130	110	33	12	33
LOOP																									
1	SLM	LT	SP	42	30	0.96	44	3.2	90	21	STRIPPER 31		4.1	2	3	7.4	312	108	7.8	6.8	120	110	42	16	51
LORENZO																									
1	SLM	LT	SP	42	30	0.93	44	3.0	87	23	PAYMASTER 909		3.8	3	3	5.7	313	98	7.5	6.3	120	100	51	19	49
PLAINVIEW																									
1	SLM	LT	SP	42	28	0.85	45	3.1	85	20	PAYMASTER 18		4.3	3	4	7.8	273	81	7.1	5.8	120	100	36	15	31
SILVERTON																									
1	SLM			41	31	0.88	47	4.3	88	21	PAYMASTER 18		3.0	1	3	6.8	289	95	7.0	6.0	120	110	29	12	42

1/ Cotton stuck to processing rolls



Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1975

Production Area, Classification & Sample Number				Fiber Test Results						Processing Test Results - Carded Yarns														
No	Grade	Style	Name & Code	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint		Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Potent- tial	
				2.5% span	Unif.		Zero Gage	1/8" Gage		Pct	Pct	Gra	Yel		Pct	Pct	Lbs	Lbs	Pct	Pct	22s or 27 tx	50s or 12 tx		22s or 27 tx
32s																								
AREA																								
SOUTHEAST																								
ALABAMA																								
3	SLM	41	33	0.97	43	4.0	82	22	7.1	2.6	2	3	4.2	99 PERCENT	90	27	6.4	4.2	100	80	21	19	41	
HUNTSVILLE																								
3	SLM	41	34	1.03	43	4.0	81	22	7.9	2.9	1	3	6.1	100 PERCENT	95	32	6.5	4.9	90	70	28	23	55	
MERIDIANVILLE																								
3	SLM LT SP	42	33	1.04	41	3.2	79	22	7.7	4.5	2	3	8.2	100 PERCENT	91	27	6.4	4.1	80	60	41	32	50	
MONTGOMERY																								
2	SLM	41	34	1.08	45	4.3	77	23	7.8	3.1	2	2	5.1	82 PERCENT	103	31	6.5	4.1	100	80	22	18	53	
MOUNDVILLE																								
3	LM	51	33	1.06	42	4.0	81	22	5.5	3.1	4	3	5.9	85 PERCENT	81	24	4.8	3.9	100	70	27	22	45	
SCOTTSBORO																								
3	SLM	41	34	1.07	43	4.0	82	22	6.5	2.2	2	3	6.2	75 PERCENT	104	32	5.9	4.4	110	80	19	17	60	
GEORGIA																								
ALLENTOWN																								
3	LM	51	34	1.06	45	4.4	77	22	6.6	4.2	2	2	7.2	98 PERCENT	95	31	5.7	4.1	90	70	29	20	50	
BOSTWICK																								
2	LM LT SP	52	34	1.03	46	4.4	83	22	5.5	4.3	5	4	7.5	100 PERCENT	90	28	5.1	3.6	110	100	16	13	50	
NORTH CAROLINA																								
SHELBY																								
2	SLM	41	34	1.05	47	5.2	92	23	5.6	2.2	2	3	7.4	100 PERCENT	97	28	5.2	3.5	120	80	11	11	48	
SOUTH CENTRAL																								
ARKANSAS																								
ALTMEIER																								
3	SLM	41	35	1.12	44	3.4	80	24	7.9	2.6	2	2	5.9	100 PERCENT	121	41	7.7	5.5	100	80	19	15	72	
LOUISIANA																								
LAKE PROVIDENCE																								
2	SLM	41	35	1.14	45	3.9	80	24	7.5	2.7	2	2	4.8	100 PERCENT	117	39	7.4	4.8	110	90	18	15	72	
3	SLM	41	35	1.12	44	4.1	81	23	7.7	2.0	1	2	5.3	100 PERCENT	126	40	7.0	5.4	110	80	23	18	73	
LAKE PROVIDENCE																								
3	SLM	41	34	1.08	43	4.0	82	22	6.1	3.1	2	2	5.8	100 PERCENT	107	34	6.3	4.7	100	80	24	19	52	



Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1975--(Continued)

Production Area, Classification &				Fiber Test Results										Processing Test Results - Carded Yarns									
Sample Number		Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint		Color Raw Stock		P & C Waste		Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Potent- ial	
No	Grade & Code	Stple	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	Yel	Pct	Waste	Lbs	Lbs	Pct	Pct	No	No	No	No		
SOUTHWEST AREA																							
NORTHWEST TEXAS																							
LUBBOCK		41	33	1.05	38	2.9	90	22	6.1	4.5	1	3	7.8	100 PERCENT*	99	29	6.8	4.0	60	60	69	54	47
LUBBOCK		41	33	1.03	39	2.7	81	22	6.7	4.1	1	3	7.5	100 PERCENT*	97	31	5.9	4.7	60	60	59	50	45
LUBBOCK		42	32	1.02	43	2.9	83	23	6.5	5.8	2	3	9.0	75 PERCENT	106	34	6.3	4.3	90	70	31	22	56
WEST AREA																							
ARIZONA																							
CASA GRANDE		31	36	1.14	45	4.5	81	24	7.4	2.4	0	3	5.0	100 PERCENT	114	42	6.4	5.2	90	70	23	20	72
GILA BEND		31	35	1.08	44	5.1	89	23	5.6	1.9	1	3	6.1	100 PERCENT	100	29	5.6	3.7	90	80	21	16	46
MARICOPA		31	36	1.14	45	4.8	84	24	6.9	2.2	0	3	5.7	100 PERCENT	107	37	5.7	4.1	100	80	25	21	57
CALIFORNIA																							
ARVIN		41	36	1.12	46	4.5	95	28	5.8	2.8	1	2	4.9	100 PERCENT	123	44	5.8	4.4	100	80	21	15	69
BAKERSFIELD		41	35	1.12	45	4.0	92	26	6.0	2.8	1	2	5.9	100 PERCENT	119	43	6.0	4.8	90	70	23	18	68
BUTTONWILLOW		41	34	1.03	40	2.8	96	25	5.7	2.9	2	2	7.8	100 PERCENT	109	38	5.8	4.3	70	60	40	33	58
CANTUA CREEK		40	36	1.13	45	3.5	93	27	5.9	2.1	0	2	5.3	100 PERCENT	129	48	6.4	5.3	90	70	30	23	78

\* 100 percent selected for tests, less than 100 percent in the area

1/ Cotton stuck to processing rolls

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1975--(Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Name & Code	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent- ial	
				2.5% span	Unif.		Pct	Rdg			Mpsi	G/tex		Pct	Pct	No	Yel	Pct	Lbs	Lbs	Pct		Pct
WEST AREA--(Continued)																							
CALIFORNIA--(Continued)																							
CORCORAN																							
3 SLM	41	35	1.12	46	4.5	89	26	6.0	2.7	1	3	6.6	125	45	6.2	4.9	110	90	11	10	66		
DOS PALOS																							
2 SLM PLUS	40	36	1.16	46	3.8	95	27	5.4	2.2	0	2	5.2	138	51	6.3	5.1	100	90	15	11	79		
HANFORD																							
3 SLM	41	35	1.13	45	4.4	95	26	5.6	1.9	2	3	5.3	126	43	6.0	4.6	100	70	22	15	69		
HURON																							
2 SLM PLUS	40	36	1.13	46	4.3	90	27	5.8	2.7	1	3	5.6	122	44	6.0	4.5	90	70	18	14	69		
LEMOORE																							
2 SLM PLUS	40	36	1.12	45	4.2	98	26	5.5	2.5	1	2	5.1	136	49	5.9	4.5	100	90	14	12	76		
LOST HILLS																							
3 SLM	41	35	1.09	45	4.3	95	27	5.9	2.3	1	2	6.6	130	46	6.3	4.8	100	80	23	15	75		
TRANQUILITY																							
2 SLM PLUS	40	36	1.14	46	4.0	91	27	5.9	2.0	0	2	6.3	133	49	5.9	5.0	110	80	15	13	81		
VISALIA																							
2 SLM	41	35	1.13	46	4.1	93	28	5.9	2.4	1	2	5.4	126	44	6.4	5.0	100	70	22	16	71		
WASCO																							
3 SLM	41	35	1.11	44	3.7	91	26	5.9	2.6	1	2	5.5	125	43	6.3	4.4	90	60	28	24	70		
WESTMORLAND																							
1 MID	31	34	1.06	45	5.5	94	25	5.7	2.1	1	2	6.9	104	32	5.1	3.7	100	80	38	25	49		

\* 100 percent selected for tests, less than 100 percent in the area



Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1975

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns										
No	Grade	Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Comber and Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Potential		
				2.5% span	Unif.		Zero	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	Pct	Pct	22s or 27 tx	50s or 12 tx	No	No		22s or 27 tx	50s or 12 tx
SOUTHEAST AREA																								
ALABAMA																								
3 LM LT SP		52	34	1.10	41	4.1	83	COKER 24	310	3.6	4	3	9.4	* 1/	91	29	5.0	4.0	90	70	33	22	53	
GEORGIA																								
1 SLM LT SP		42	35	1.06	43	4.2	89	COKER 23	310	3.3	4	4	10.6	* 18.4	85	25	4.7	3.4	100	70	19	14	51	
2 SLM LT SP		42	34	1.08	43	4.4	85	COKER 23	310	4.0	3	3	10.7	* 19.6	79	25	4.5	3.6	110	80	17	14	48	
NORTH CAROLINA																								
3 SCOTLAND NECK		51	35	1.13	45	4.6	88	COKER 25	310	3.4	3	3	8.9	* 16.8	100	34	5.3	4.2	100	90	20	14	59	
SOUTH CENTRAL AREA																								
TENNESSEE																								
3 LM		51	33	1.05	42	4.2	87	COKER 23	310	3.2	3	3	9.9	* 19.0	88	27	5.0	3.5	120	80	15	12	53	

\* Comber waste and combed yarn data

1/ Insufficient cotton to run comber tests

Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1975--(Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns										
No	Grade		Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color		P & C and Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Poten- tial		
	Name	Code		2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx			
				32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No		
WEST AREA																								
ARIZONA																								
DUNCAN																								
1	MID		31	37	1.16	45	3.7	93	ACALA	1517-70	5.7	2.4	1	3	7.6	136	51	6.0	5.3	100	80	18	19	81
												*		14.6	155	59	6.1	5.3	110	100	10	8		
NEW MEXICO																								
ARTESIA																								
2	MID		31	36	1.16	44	3.2	97	ACALA	1517-V	5.5	2.2	0	3	7.1	138	53	6.1	5.0	80	60	49	42	94
												*		16.3	160	63	6.4	5.5	100	70	26	18		
BERINO																								
2	MID		31	36	1.15	44	2.9	97	ACALA	1517-70	6.1	2.3	0	2	8.6	136	50	6.3	5.0	70	60	31	27	90
												*		16.8	156	75	6.8	5.7	100	70	18	13		
WEST TEXAS																								
TORNILLO																								
2	MID		31	37	1.17	44	3.1	93	ACALA	1517-C	6.1	2.4	0	2	7.3	139	52	6.2	5.2	90	70	20	17	89
												*		14.0	156	60	6.5	5.9	100	70	13	10		

1/ 100 percent selected for tests, less than 100 percent in the area

\* Comber Waste and Combed Yarn Data

Table 5 --Cotton, American Pima extra long staple: Quality characteristics by production areas, crop of 1975

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Combed Yarns									
No	Grade	Name & Code	Stple	Array Length		Mike	Fiber Strength		Elon- gat'n 1/8" Gage	S.A. Non- Lint	Color Raw Stock		P & C Waste	Comber Waste	Strength		Elongation		Appearance Index		Imprfect'ns		
				UQL	CV		Zero Gage	1/8" Gage			Gra	Yel			50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx	
				32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No
WEST AREA																							
ARIZONA																							
BOWIE																							
1	3	44		1.50	29	4.1	103		PIMA S-4 34	8.0	1.9	4	5	7.4	18.0	93 PERCENT 34	5.6	5.0	120	120	1	2	
NEW MEXICO																							
LAS CRUCES																							
1	3	44		1.47	30	3.8	101		PIMA S-4 34	7.4	2.1	4	5	7.3	17.1	81 PERCENT 36	5.7	4.8	110	120	2	1	
WEST TEXAS																							
EL PASO																							
1	3	44		1.45	31	3.8	102		PIMA S-4 33	7.3	2.9	3	5	8.1	17.9	99 PERCENT 34	5.2	4.4	110	120	2	2	

